CHARGE NUMBER: 2105

PROJECT TITLE: FILTER DEVELOPMENT

PROJECT LEADER: W. A. NICHOLS

PERIOD COVERED: SEPTEMBER, 1985

I. Filter Development - FML (W. Nichols)

Objective:

To develop the technology to manufacture filters from FML polypropylene tow.

Status:

A sample shipment of 4,000 filter rods was sent to Pakistan Tobacco Co., Pakistan for evaluation. If testing is satisfactory the remainder of the order, two million filter rods will be shipped.

Production of an order for 150,000 filter rods for India was initiated. To achieve the circumference specification a new garniture was fabricated.

Sample tow was produced at FML, West Drayton, to determine a correlation between changes in resistance to fibrillation and plugmaker efficiency. During production of the tow, resistance to fibrillation changed as a function of orientation temperature. This sample will be tested in October.

Optimization of tow characteristics continued. A high compression (200 tons) bale was evaluated. Debaling was superior to the normal low compression (15 tons) bales. Acquisition of a 200 ton press for baling is being discussed with FML, West Drayton. Several bales of tow produced on the new fibrillator were tested. Improved yields were found to be due to increased pin density on the fibrillator. The supplier erroneously fabricated fibrillator rolls with 34 pins/inch rather than the specified 25 pins/inch. Evaluations are continuing to determine if this advantageous.

Plans:

Improve plugmaker efficiency to 85%

November, 1985

Prepare samples for additional market evaluation

Continuous

II. Tobacco Extrusion (R. Thesing)

Objective:

To develop an extruded foam tobacco product meeting Focus Goal One requirements.

Status:

The extruded rod was subjectively evaluated versus both the unflavored Marlboro and Marlboro Lights models. It was found to be different from both controls but decidedly better than earlier versions. Flavor work will begin with this model.

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Tobacco Extrusion Cont'd.

Following is a list of analytical data:

	CPB	CO4	COZ
	(Extruded)	(Marlboro)	(Marl. Lts.)
Tar (mg/cigt)	13.4	15.8	10.8
TPM (mg/cigt)	17.4	20.0	12.5
Nic (mg/cigt)	0.74	1.06	0.73
Water (mg/cigt)	3.28	3.11	0.99
PC	7.5	8.8	8.1

Additional flavor models with dual filters were submitted for subjective evaluation. These models contain cellulose acetate (CA) and various tobacco blends in the dual filter. Both cased Marlboro dust and uncased Marlboro dust models are being evaluated.

Plans:

Phase II Production Line

4th Qtr., 1985

Subjective evaluation

Continuous

III. Menthol Application (G. Patron)

Objective:

Assist in the introduction of menthol on foil into production.

Status:

Analytical and subjective testing of Marlboro 85mm and menthol control and menthol on foil packed test cigarettes produced in early September were completed. All cigarettes were produced using the new Golden Belt alcohol resistant gold stripe foil. Analytically the tow test cigarettes (made with filters with and without modified pz) and the control cigarette were determined to be almost equal. Subjective results by the Flavor panel showed the three models different, favoring the control cigarette slightly.

Preliminary machinability testing of the mentholated ARCO (with fatty acid lubricant) foil was run at semiworks to produce Marlboro 85mm menthol cigarettes.

PM mentholator machine #1 was shipped to Louisville for installation at the LMCP. Production procedures for the menthol on foil application were written.

Plans:

Initiate training of Louisville personnel

November, 1985